

COURSE STRUCTURE (MCA)

Semester-I

| Sr. No | Sub. Code | Subject Title | Workload | | | Marks | | | Tot. |
|--------------|-----------|---|-----------|-----------|-----------|------------|------------|------------|------------|
| | | | T | P | Tot. | Uni. | Int. | Pro | |
| 1 | J030101 | Basics of Software Development Skills | 4 | - | 4 | 70 | 30 | - | 100 |
| 2 | J030102 | Procedure Oriented Programming | 4 | 4 | 8 | 70 | 30 | 50 | 150 |
| 3 | J030103 | Computer Architecture and Assembly Language Programming | 4 | 4 | 8 | 70 | 30 | 50 | 150 |
| 4 | J030104 | Business Process Modeling | 4 | - | 4 | 70 | 30 | - | 100 |
| 5 | J030105 | Computational Mathematics I | 4 | - | 4 | 70 | 30 | - | 100 |
| 6 | J030106 | Web supporting Technologies | 3 | 4 | 7 | - | - | 100 | 100 |
| 7 | J030107 | Self Learning Course -I | 2 | - | - | - | 50 | - | 50 |
| 8 | J030108 | Societal Concerns and Life Skills | 1 | - | 1 | - | 50 | - | 50 |
| Total | | | 26 | 12 | 38 | 350 | 250 | 200 | 800 |

Semester-II

| Sr. No | Sub. Code | Subject Title | Workload | | | Marks | | | Tot. |
|--------------|-----------|--|-----------|-----------|-----------|------------|------------|------------|------------|
| | | | T | P | Tot. | Uni. | Int. | Pro | |
| 9 | J030109 | Database Management Systems | 4 | 4 | 8 | 70 | 30 | 50 | 150 |
| 10 | J030110 | Object Oriented Programming | 4 | 4 | 8 | 70 | 30 | 50 | 150 |
| 11 | J030111 | Operating System Concepts and Case Studies | 4 | - | 4 | 70 | 30 | - | 100 |
| 12 | J030112 | Financial management and Accounting Principles | 4 | - | 4 | 70 | 30 | - | 100 |
| 13 | J030113 | Computational Mathematics II | 4 | - | 4 | 70 | 30 | - | 100 |
| 14 | J030114 | Minor Software Project-1 | - | 4 | 4 | - | - | 100 | 100 |
| 15 | J030115 | Self Learning Course -II | 2 | - | - | - | 50 | - | 50 |
| 16 | J030116 | Communication Skills | 4 | - | 4 | - | 50 | - | 50 |
| Total | | | 26 | 12 | 38 | 350 | 250 | 200 | 800 |

Semester-III

| Sr. No | Sub. Code | Subject Title | Workload | | | Marks | | | |
|--------------|-----------|---|-----------|-----------|-----------|------------|------------|------------|------------|
| | | | T | P | Tot. | Uni | Int. | Pro | Tot. |
| 17 | J030217 | Software Engineering | 4 | 3 | 7 | 70 | 30 | - | 100 |
| 18 | J030218 | Linux Programming | 4 | 3 | 7 | 70 | 30 | 50 | 150 |
| 19 | J030219 | Computer Networks | 4 | - | 4 | 70 | 30 | - | 100 |
| 20 | J030220 | Organizational Behavior and Change Management | 4 | - | 4 | 70 | 30 | - | 100 |
| 21 | J030221 | Scientific Computation | 4 | 3 | 7 | 70 | 30 | 50 | 150 |
| 22 | J030222 | Dot NET Technologies | 3 | 3 | 6 | - | - | 100 | 100 |
| 23 | J030223 | Self Learning Course -III | 2 | - | - | - | 50 | - | 50 |
| 24 | J030224 | Foreign Language | 1 | - | 1 | - | 50 | - | 50 |
| Total | | | 26 | 12 | 38 | 350 | 250 | 200 | 800 |

Semester-IV

| Sr. No | Sub. Code | Subject Title | Workload | | | Marks | | | |
|--------------|-----------|---|-----------|-----------|-----------|------------|------------|------------|------------|
| | | | T | P | Tot. | Uni. | Int. | Pro | Tot. |
| 25 | J030225 | Object Oriented Analysis and Design Patterns | 4 | - | 4 | 70 | 30 | - | 100 |
| 26 | J030226 | Applied Data Structures and Algorithm Design Patterns | 4 | 4 | 8 | 70 | 30 | 50 | 150 |
| 27 | J030227 | Distributed Programming | 4 | 4 | 8 | 70 | 30 | 50 | 150 |
| 28 | | Elective-I | 4 | - | 4 | 70 | 30 | - | 100 |
| 29 | | Elective-II | 4 | - | 4 | 70 | 30 | - | 100 |
| 30 | J030230 | Minor Project-II | - | 4 | 4 | - | - | 100 | 100 |
| 31 | J030231 | Self Learning Course -IV | 2 | - | - | - | 50 | - | 50 |
| 32 | J030232 | Entrepreneurship Skills | 4 | - | 4 | - | 50 | - | 50 |
| Total | | | 26 | 12 | 38 | 350 | 250 | 200 | 800 |

Semester-V

| Sr. No | Sub. Code | Subject Title | Workload | | | Marks | | | |
|--------------|-----------|--|-----------|-----------|-----------|------------|------------|------------|------------|
| | | | T | P | Tot. | Uni. | Int. | Pro | Tot. |
| 33 | J030333 | Software Project Management and Software Testing | 4 | 4 | 8 | 70 | 30 | 50 | 150 |
| 34 | J030334 | Web services and SOA Applications | 4 | 4 | 8 | 70 | 30 | 50 | 150 |
| 35 | J030335 | Soft Computing | 4 | - | 4 | 70 | 30 | - | 100 |
| 36 | | Elective-III | 4 | - | 4 | 70 | 30 | - | 100 |
| 37 | | Elective-IV | 4 | - | 4 | 70 | 30 | - | 100 |
| 38 | J030338 | Minor Project-III | - | 4 | 4 | - | - | 100 | 100 |
| 39 | J030339 | Self Learning Course -V | 2 | - | - | - | 50 | - | 50 |
| 40 | J030340 | Research Patterns in Information Technology and Applications | 4 | - | 4 | - | 50 | - | 50 |
| Total | | | 26 | 12 | 38 | 350 | 250 | 200 | 800 |

Semester-VI

| Sr. No | Sub. Code | Subject Title | University Examination |
|--------|-----------|------------------------|--------------------------|
| 41 | J03034 | Major Software Project | Letter Grade: A, B, or F |

ELECTIVES

From the following groups students have to select only one Group. An elective group will be offered only if a minimum 10 students opt for that group in Semester-IV

Group I : Business Applications of IT

| Paper No. | Code Number | Subject Title |
|-----------|-------------|--------------------------------------|
| 1 | J0302BIT01 | Design of E-Commerce Applications |
| 2 | J0302BIT02 | Intelligent Decision Support Systems |
| 3 | J0303BIT03 | Knowledge Management |
| 4 | J0303BIT04 | IT Enabled Services |

Group II : Computer Networking

| Paper No. | Code Number | Subject Title |
|-----------|-------------|--------------------------------|
| 1 | J0302CN01 | Internet Architecture & Design |
| 2 | J0302CN02 | Network Programming |
| 3 | J0303CN03 | Network Administration |
| 4 | J0303CN04 | Network Security |

Group III : Theoretical Computer Science

| Paper No. | Code Number | Subject Title |
|-----------|-------------|--------------------------------|
| 1 | J0302TC01 | Design of Language Processors |
| 2 | J0302TC02 | Advanced Database Technologies |
| 3 | J0303TC03 | High Performance Computing |
| 4 | J0303TC04 | Simulation Modeling |

Group IV : Advanced Programming Environments

| Paper No. | Code Number | Subject Title |
|-----------|-------------|--|
| 1 | J0302APE01 | MFC Programming |
| 2 | J0302APE02 | Advanced Software Engineering |
| 3 | J0303APE03 | Human Computer Interface Design & Mobile Computing |
| 4 | J0303APE04 | Open Source Technologies |

Group V : Embedded Technologies

| Paper No. | Code Number | Subject Title |
|-----------|-------------|--|
| 1 | J0302ET01 | Embedded System Concepts & Modeling |
| 2 | J0302ET02 | Embedded System Design & Programming |
| 3 | J0303ET03 | Embedded System Interfacing & Embedded Communication Systems |
| 4 | J0303ET04 | Embedded System Programming using Higher Level Languages. |